

CLAIMS

1. A flat board type brushless DC motor, comprising:

a housing which supports a rotor through an assembly with a plurality of stators and is
5 installed against said stators;

a stator which consists of a stator core having a ring type laminated flat structure and a
plurality of teeth cores each having winding coil and are slotted at a constant distance on
inner or outer circumference of a stator circle; and

a rotor which has a plurality of magnets that are installed in order to fix a circle flat rotor
10 frame on a rotor shaft which is fixed through a bearing in said housing and to face against
the teeth core on one face of rotor frame which faces said teeth core.

2. The motor as claimed in Claim 1, wherein said stator further includes a laminated
flat core structure of a teeth core (4) and a stator core; and said stator core has a structure
15 configuration which is made of the multi slots with a constant distance on the inner or
outer circumference of a stator core circle in order to be installed and said teeth core has
a constant thickness which is consisted of a number of teeth core.

3. The motor as claimed in Claim 1, wherein magnets which are installed on said
20 rotor faces each of teeth core where said coil is wound and has even number of magnetic
pole array of N and S pole according to the magnetic pole number of motor.

4. The motor as claimed in Claim 1, wherein a plurality of said magnets are
installed along the axial direction of the rotor to increase the rotator frame and a

plurality of stators are installed in the housing in order to face against said magnets in order to increase the torque of the motor.

5. A flat board type brushless DC motor, comprising:

- 5 a housing which supports a rotor through an assembly with a plurality of stators and is installed against said stators;
- a stator which consists of a stator core having a ring type laminated flat structure and a plurality of teeth cores each having winding coil and are slotted at a constant distance on inner or outer circumference of a stator circle; and
- 10 a rotor which has a induction motor that are installed in order to fix a circle flat rotor frame on a rotor shaft which is fixed through a bearing in said housing and to face against the teeth core on one face of rotor frame and is consisted of a plurality of teeth cores which are insulated by short circuit rings which faces said teeth core.

- 15 6. The motor as claimed in Claim 5, wherein said stator further includes a laminated flat core structure of a teeth core (4) and a stator core; and said stator core has a structure configuration which is made of the multi slots with a constant distance on the inner or outer circumference of a stator core circle in order to be installed and said teeth core has a constant thickness which is consisted of a number of teeth core.

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7. The motor as claimed in Claim 5, wherein said induction motor consisted of a laminated rotor core, a teeth core which is assembled on top of rotor core and a short circuit ring that insulates between the teeth cores and exposes some part of the teeth core, and said rotor core has a structure configuration which is made of the multi slots

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with a constant distance on the inner or outer circumference of a stator core circle in order to be installed and said teeth core has a constant thickness which is consisted of a number of teeth core.

- 5 8. The motor as in any one of Claims 5, 6 or 7, wherein said induction motor is installed along the axial direction of the rotor to increase the rotator frame and a plurality of stators are installed in the housing in order to face against said magnets in order to increase the torque of the motor.

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